

Abstract

5 A photoreceiver cell with separation of color components of light incident to its surface, formed in a silicon substrate of the conductivity of the first type with an ohmic contact and comprising: the first, second and third regions, which have mutual positioning and configuration, which provide formation of the first and the second channels for diffusion of the secondary charge carriers generated in the substrate regions located under the first and the second potential barriers to the first and the third p-n junctions respectively; in this case, the length of the channels does not exceed the
10 diffusion length of the secondary charge carriers.

A technical result of the present invention is an increase in spatial resolution of the projected image and its dynamic range.

Another technical result of the present invention is a decrease in the photo-cell area.

15 A photoreceiver cell with color separation may find broad application in multielement photoreceivers for video cameras and digital cameras.